

**REMARKS**

Claims 1-5, 8-11, 14-16, and 19-20 are pending of which claims 1, 8, 15 and 19 are independent.

**Claim Rejections Under 35 U.S.C. §103(a)**

Claims 1-5, 15 and 16 were rejected under 35 U.S.C. §103(a) as being unpatentable over Inoue et al. (U.S. Patent No. 5,344,498, hereinafter “Inoue”) in view of Neerinck et al. (D.G. Neerinck and T.J. Vink, Thin Solid Films 278 (1996) 12-17, hereinafter “Neerinck”) and in further view of Adurodija et al. (F.O. Adurodija, H. Izumi, T. Ishihara, H. Yoshioka and M. Motoyama, J. Appl. Phys. 88(2000) 4175-4180, hereinafter “Adurodija”). The rejections are respectfully traversed for the following reasons.

Claims 1 and 15, in pertinent part, recites “a transparent conductive film... including an indium oxide layer having (222) plane orientation with two (222) peaks in said indium oxide layer.” The proposed combination of Inoue, Neerinck, and Adurodija fails to disclose the limitations of claims 1 and 15.

The Examiner asserted that Neerinck discloses the “indium oxide layer...having two peaks in its x-ray diffraction spectrum.” Contrary to the Examiner’s assertion, Neerinck fails to disclose the “indium oxide layer...having plane orientation with two (222) peaks.” The two peak spectrum of Neerinck originated from two layers each of which is under different stress conditions. The low-angle peak originates from the top layer under the high stress, whereas the high-angle peak originates from the bottom layer under the low stress. On the other hand, Neerinck requires the ITO to be applied as a transparent conductor under low internal stress, of which x-ray diffraction spectrum has only high-angle peak. (See lines 4-7 of Introduction)

Neerinck's disclosure is directed to ITO film having only high-angle peak in its x-ray diffraction spectrum. In contrast, the "indium oxide layer" of claim 1 has "(222) plane orientation with two (222) peaks in said indium oxide layer."

Adurodija and Inoue are silent on the "indium oxide layer having plane orientation with two (222) peaks."

Accordingly, as each and every limitation must be disclosed or suggested by the cited prior art references in order to establish a *prima facie* case of obviousness (*see*, M.P.E.P. § 2143.03) and for at least the foregoing reasons the proposed combination of Inoue, Adurodija and Neerinck fails to do so, it is respectfully submitted that claims 1 and 15 and the claims dependent thereon are patentable over the combination of Inoue, Adurodija and Neerinck.

Claims 8-14, 19 and 20 were rejected under 35 U.S.C. § 103 (a) as being unpatentable over Nakamura et al. (U.S. Patent No. 7,030,413, hereinafter "Nakamura") in view of Vink et al. (T.J. Vink, W. Walrave, J.L.C. Daams, P.C. Baarslag, J.E.A.M. van den Meerakker, Thin Solid Films 266 (1995) 145-151, hereinafter "Vink") and further in view of Adurodija. The rejections are respectfully traversed for the following reasons.

The Examiner asserted that Vink's film discloses the "indium oxide layer... having two peaks in its x-ray diffraction spectrum" of claims 8 and 19. As opposed to the Examiner's assertion, Vink's film fails to disclose the "indium oxide layer... having two peaks in its x-ray diffraction spectrum." As illustrated in Fig. 4, the x-ray spectrum of Vink's ITO film does not show two peaks under low stress, e.g. 0mPA, but illustrates two peaks under high internal stress. However, Vink requires the film to be applied at low internal stress to prevent deformation and fracture of which x-ray diffraction spectrum has only high angle peak. (See page 1, left column, lines 12-15) Like Neerinck, Vink's disclosure is directed to ITO film having only high-angle

peak in its x-ray diffraction spectrum. In contrast, the "indium oxide layer" of claims 8 and 19 has "(222) plane orientation with two (222) peaks in said indium oxide layer."

Nakamura fails to disclose the limitations of claims 8 and 19 as admitted by the Examiner. In addition, Adurodija is silent on the limitations of claims 8 and 19, as addressed above.

Accordingly, as each and every limitation must be disclosed or suggested by the cited prior art references in order to establish a *prima facie* case of obviousness (*see*, M.P.E.P. § 2143.03) and for at least the foregoing reasons the proposed combination of Nakamura, Adurodija and Vink fails to do so, it is respectfully submitted that claims 8 and 19 and the claims dependent thereon are patentable over the combination of Nakamura, Adurodija and Vink.

### **Conclusion**

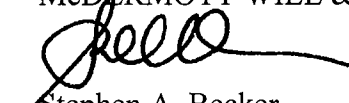
Applicant submits that all of the claims are in condition for allowance. Accordingly, this case should now be ready to pass to issue; and Applicant respectfully requests a prompt favorable reconsideration of this matter.

**Application No.: 10/790,759**

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

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